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DISCOVERIES AND CURRENT EVENTS *

Angola: Locust Movements (*Nomadacris septemfasciata* and *Locusta migratoria migratorioides*) (1).

During the month of January, 1935, the control was carried out in all parts of the Colony. From information received it appears that the during the month a total was destroyed of 71.176 kg of egg-pods, 179.069 kg of hoppers and 228.920 kg of adults. This control was particularly active in the provinces of Benguela, Huila and Luanda. In addition to the above, 217 hopper bands have been destroyed.

No information is available on the districts of Congo, Bié, and Quanza Sul.

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The locust control has continued actively throughout the Colony. During the month of February, 1935 a total of 329.948 kg. of egg-pods, 307.446 kg. of hoppers and 320.825 kg. of adults have been destroyed also 865 hopper bands. This control has been particularly intense in the provinces of Bié, Huila, Benguela and Malange. The material employed in this campaign was as follows (in tons):—sodium arsenite, 75.5; sprayers 'Tipo Mixto', 1300; 'Barlow' dusting apparatus, 100; galvanised iron barriers, 10.000; flame throwers, 32; sprayers 'Hypolito', 108.

Argentine Republic: New Studies on the 'Lepra Explosiva' of the Orange (2).

The 'Dirección de Sanidad Vegetal' of the Ministry of Agriculture of the Argentine Republic has informed the 'Superioridad' on the work carried out by the Agronomical Engineer, Mr. Alfredo M. Offermann in the Phytopathological Laboratory of Bella Vista, province of Corrientes on the disease commonly known as 'lepra explosiva', considered the most serious disorder of citrus growing in that province.

* Under this and the next heading the countries are arranged in French alphabetical order.

(1) Communication from Mr. JORGE DE BARROS RODRIGUES QUEIROZ, Agronomy Engineer attached to the Locust Control Service, Luanda, transmitted to the Institute by the Government General of the Colony.

(2) Communication from the official correspondent of the Institute, Mr. JUAN B. MARCHIONATTO, Agronomical Engineer, Director of the 'Sanidad Vegetal', Ministry of Agriculture, Buenos Aires, Argentine Republic.

The disease has been attributed in the Argentine Republic to the action of *Amylirosa aurantiorum* Speg., while in other parts of the world (the United States of America) it is attributed to another fungus, *Cladosporium herbarum* (Pers.) Lk. var. *citricolum* Fawcett. The work carried out in the Laboratory at Bella Vista shows that there is no mycelium in the tissues corresponding to the undeveloped spots, and that the isolated microflora which appear afterwards is constituted by ordinary organisms or parasites which have nothing to do with the agent causing 'lepra explosiva'.

The study of the symptoms of the disease, the form of propagation and other characteristics, has given reason for thinking it may be a virus disease. The possibility that 'lepra explosiva' was of physiological origin, has been rejected since the disease has been artificially reproduced by inoculation with the sap expressed from a diseased plant.

The lesions observed in the organs attacked have been followed throughout all the development, especially as manifested on the twigs, leaves and fruit. The first symptoms of the disease are almost always unobserved as these are only manifested by slight circular or oval protuberances or swellings chiefly localised on the annual shoots or shoots more than three months old. These swellings are green to begin with and only change colour with growth, being then very easily distinguished; their size may be between 4 and 12 mm. When about 4 mm. in diameter they resemble raised disks which begin to show a depression in the centre as the size of spot the increases. A greenish ring forms on the bark the centre of which turns yellow; later with the diminution in the flow of sap, the part which corresponds with the ring dries up first and at the same time begins to turn into a cork-like substance of a reddish cinnamon colour. When the diminution of the sap is very pronounced on account of drought, etc., and occurs before the formation of the ring, the whole disk dries up and takes on the above mentioned colour.

The studies on the form in which infection is produced show that on the twigs and shoots attacked by 'lepra' it is especially active in humid surroundings. Following heavy rains, the watery marks typical of the disease, were also observed on the leaves. Once attacked the leaf falls prematurely though previously the substances contained in the leaf concentrate in the region of the bud protected by the leaf stalk; simultaneously with the concentration of the substances the disease appears in the region adjacent to the bud and forms here a new typical mark on the twigs. It is easy to understand how by grafting this bud a infected tree is obtained. Sometimes it occurs that the infection which covers the branch does not reach the leaf, but attacks some other part, such as the shoots where the characteristic lesions appear.

Observations were also made on the effect of 'lepra explosiva' on plants and two common forms were determined, a chronic form, which is the most frequent and does not kill the plant, but maintains it in a state of extreme debility; and an aggravated form which kills the plant within 2 to 5 years.

The damage caused by 'lepra explosiva' varies; at first the twigs, and principally the shoots, dry up, the leaves attacked fall easily and the fruit deteriorates when it does not actually fall. The disease also acts as a channel for all classes of destructive agents among others *Colletotrichum gloeosporioides*.

Finally, studies have been made on methods of control, according to two systems: external and internal treatment. With the external method (application of Bordeaux mixture with oil emulsion, removal of branches attacked, etc.), a favourable reaction has been observed in the subjects treated though not completely liberated from the infection. With internal treatment (injections of various solutions of mercury bichloride, iodine, crystal violet, etc., in small doses), greater hopes have been raised. While these studies are taking place, among the means of control to be adopted in addition to those already in use (spraying with Bordeaux mixture and oil emulsions, pruning, etc.), it is of primary importance when establishing new plantations to take care that the plants do not come from trees attacked by the disease and, above all, to take special care that buds for grafting are taken from plants completely free from 'lepra explosiva'.

Brazil: Some New Diseases Observed in the State of Minas Geraes in 1934 (1).

✕ <i>Averrhoa carambola</i>	<i>Colletotrichum gloeosporioides</i> Penz.
<i>Beta vulgaris</i>	<i>Heterodera radiculicola</i> Greeff.
<i>Brassica oleracea capitata</i>	<i>Alternaria brassicae</i> Sacc.
<i>Chrysanthemum</i> sp.	<i>Oidium</i> sp.
✕ <i>Coffea arabica</i>	<i>Corticium koleroga</i> (Cke) v. Höhn. Destroyed a
<i>Citrus</i> sp.	✕ nursery bed of 10.000 seedlings at Herval.
	<i>Sphaceloma fawcettii</i> var. <i>viscosa</i> Jenkins. At
	Jacutinga on sweet orange fruit, var. Bahia.
	Leptose - Cause obscure. On fruit of sweet
	orange trees at Juiz de Fora.
<i>Cucumis melo</i>	<i>Colletotrichum lagenarium</i> (Pass.) E. & H.
✕ <i>Dianthus</i> sp.	✕ <i>Cercospora citrullina</i> Cke.
<i>Dioscorea alata</i>	<i>Sclerotium rolfsii</i> Sacc.
<i>Godetia</i> sp.	<i>Cercospora dioscoreae</i> E. & M.
<i>Gossypium</i> sp.	<i>Sclerotium rolfsii</i> Sacc.
<i>Holcus</i> sp.	<i>Cercospora gossypina</i> Cke.
<i>Ipomoea batatas</i>	<i>Puccinia purpurea</i> Cke.
<i>Lupinus polyphyllus</i>	<i>Pythium</i> sp.
✕ <i>Lycopersicum esculentum</i>	<i>Sclerotium rolfsii</i> Sacc.
	<i>Rhizoctonia solani</i> Kühn. ✕ Causes fruit rot in rainy
	weather. ✕
<i>Manihot utilissima</i>	<i>Diplodia cacaicola</i> P. Henn. Attacks the foot of
	plant and comestible roots.
<i>Nigella</i> sp.	<i>Sclerotium rolfsii</i> Sacc.

(1) Communication from Mr. ALBERT S. MÜLLER, Professor of Phytopathology, Higher School of Agriculture and Veterinary Science, State of Minas Geraes, Viçosa, transmitted to the International Institute of Agriculture by Mr. J. C. BELO LISBOA, Director of the above mentioned School.

<i>Persea americana</i>	<i>Sphaceloma perseae</i> Jenkins. On plants in nursery from seeds from Limeira, São Paulo.
<i>Pyrus malus</i>	<i>Oidium</i> sp.
<i>Raphanus sativus</i>	<i>Peronospora parasitica</i> (Pers.) de By.
<i>Saccharum officinarum</i>	Frost blotch - Worst on POJ 2725.
	Chlorotic blotch - Worst on POJ 2714. Associated with <i>Fusarium moniliforme</i> Sheld.
<i>Solanum melongena</i>	<i>Phomopsis vexans</i> (S. & S.) Harter.
<i>Zea mays</i>	<i>Cercospora</i> sp.

Eritrea: Locusts (1).

During the months of May and June, 1935, no locusts have been reported in the Colony.

India: New Plants Diseases Recorded in 1934 (2).

Pusa (Reported by the Imperial Mycologist, Imperial Institute of Agricultural Research, Pusa).

<i>Saccharum officinarum</i>	<i>Helminthosporium</i> sp. causing foot-rot of seedlings.	
~~<i>Elettaria cardamomum</i>~~	Stinking rot caused by <i>Phyllosticta</i> sp. and <i>Sphaerella</i> sp. (leaf-spot).	<i>Bot. phomopsis</i> <i>Saccharum</i> Dec
<i>Raphanus sativus</i>	<i>Rhizoctonia solani</i> .	
<i>Zea mays</i>	<i>Rhizoctonia bataticola</i> .	
	<i>Sclerotinia sclerotiorum</i> .	
	<i>Fusarium</i> sp.	
<i>Merremia emarginata</i>	<i>Cystopus candidus</i> (Pers.) Lév.	
<i>Castanea vulgaris</i>	<i>Endothia</i> sp.	On fruits
	<i>Sclerotium</i> sp.	
<i>Glycine hispida</i>	<i>Cercospora</i> sp.	Leaf-spot
<i>Crotalaria juncea</i>	<i>Cercospora</i> sp.	
<i>Jasminum angustifolium</i>	<i>Cercospora</i> sp.	
<i>Vitis vinifera</i>	<i>Diplodia</i> sp., leaf-spot.	

Madras (Reported by Mr. S. Sundararaman Ayl., Government Mycologist, Coimbatore).

<i>Elettaria cardamomum</i>	Mosaic of cardamom. Propagation through seed is recommended as the most effective method of control.
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(1) Communication from the official correspondent of the Institute, Dr. ROLANDO GUIDOTTI, Chief of the Agricultural Bureau of Eritrea, transmitted by the Government of the Colony.

(2) Communication from the official correspondent of the Institute, Mr. I. D. GALLOWAY, M. A., Imperial Mycologist, Imperial Institute of Agricultural Research, Pusa, Bihar, India.

× *Oryza sativa*

× *Fusarium moniliforme* var. *majus* causes foot-rot. Seed treated with mercury dusts is recommended.

× *Nicotiana tabacum*

× *Pythium aphanidermatum* causes damping-off of seedlings in the nursery. × The use of raised beds (where water does not stagnate) and treating the surface of the beds by burning trash on them have been found effective.

United Provinces (Reported by Mr. P. K. Dey, Plant Pathologist, Cawnpore).

Arachis hypogaea

Fusarium sp., wilt.

Inga dulcis

Colletotrichum sp., leaf-spot.

Linum usitatissimum

Oidium sp.

Saccharum officinarum

Rhizoctonia sp., bacterial top-rot.

United Provinces (Reported by Dr. J. H. Mitter, University of Allahabad, Allahabad).

Solanum tuberosum

Fusarium viride (*F. solani* var. *medium* Wr.).

Pyrus malus

Fusarium moniliforme Sheldon.

Mimosa hexandra

Uromyces gentilis Syd.

Mimosa rubicaulis

Ravenelia enerina Syd.

Deutzia staminea

Aecidium tandonii Mitter.

Porana panicula'a

Diaporthe mitteriana Syd.

Dalbergia sisoo

Cercospora sisoo Syd.

Peristrophe bicalyculata

Cercospora peristrophes Syd.

Zizyphus rotundifolia

Mitteriella zizyphina Syd.

Central Provinces (Reported by Mr. J. F. Dastur, Mycologist, Nagpur).

Piper betle

Pythium piperinum Dast. n. sp.

Phytophthora parasitica var. *piperina* Dast. nov. var.

Citrus sp.

Sphaceloma fawcetti Jenkins, scab. Spraying with Bordeaux mixture has been found effective.

Pseudomonas citri Hasse, canker. Can be controlled by sprayings with Bordeaux mixture.

× Greasy spot, a 'Black melanose' — a physiological disease.

× *Arachis hypogaea*

× *Cercospora personata* (B. and C.) E. and E.

× *Cercospora arachidicola* Hori.

Both can be controlled by spraying with Bordeaux mixture or Bouisol.

Burma (Reported by Mr. U. Thet Su, Mycologist, Mandalay).

<i>Saccharum officinarum</i>	<i>Cercospora kopkei</i> Krug.
<i>Aleurites fordii</i>	<i>Diplodia theobromae</i> Pat.
<i>Brassica oleracea</i>	<i>Alternaria circinans</i> Bolle.
<i>Triticum vulgare</i>	<i>Septoria</i> sp.
<i>Borassus flabellifer</i>	<i>Thielaviopsis paradoxa</i> v. Höhn.
<i>Trigonella foenum-graecum</i>	<i>Cercospora traversiana</i> Sacc.
<i>Citrus aurantium</i>	<i>Penicillium italicum</i> Weh.
<i>Areca catechu</i>	<i>Thielaviopsis</i> sp.
<i>Hordeum vulgare</i>	<i>Helminthosporium teres</i> Sacc.
	<i>Helminthosporium sativum</i> P. K. and B.
<i>Coriandrum sativum</i>	<i>Puccinia graminis</i> Pers.
<i>Mangifera indica</i>	<i>Erysiphe polygoni</i> D. C. (Oïdial stage).
	<i>Oidium erysiphoides</i> Fr.
<i>Sesamum indicum</i>	<i>Dothiorella</i> sp.
	<i>Phoma</i> sp.

Punjab (Reported by R. S. Jai Chandra Luthra, Professor of Botany, Agricultural College, Lyallpur).

<i>Pennisetum typhoideum</i>	<i>Striga</i> sp. - a root parasite.
<i>Medicago sativa</i>	<i>Cuscuta planiflora</i> , dodder.
<i>Mangifera indica</i>	<i>Gloeosporium</i> sp.

Bengal (Reported by the Economic Botanist, Dacca).

<i>Nicotiana tabacum</i>	<i>Sclerotium rolfsii</i> .
<i>Arachis hypogaea</i>	<i>Rhizoctonia</i> sp.
	<i>Sclerotium rolfsii</i> .
<i>Saccharum officinarum</i>	Pokkah-bong caused by <i>Fusarium</i> sp.

Southern Rhodesia: Locust Invasion, 1932-1935 (1).

The locust position has remained quiet throughout April, 1935.

The only species recorded is the Red Locust (*Nomadacris septemfasciata*, Serv.). The first adults of the new generation were reported on the 9th of the month in the Gwelo district, and another swarm was recorded in Salisbury district on the 12th. A few other swarms have since been reported in various districts, making a total of about nine swarms. Most of these are stated to be of large size. Information in regard to direction of flight has mostly been lacking. Probably the swarms have not as yet taken any particular direction.

(1) Communication from the official correspondent of the Institute, Mr. RUPERT W. JACK, F. F. S., Chief Entomologist, Department of Agriculture, Salisbury, Southern Rhodesia.

Specimens, which had died from *Empusa*, have been received on two instances from the Mazoe district. In one case the whole swarm is stated to have settled and failed to rise again.

The appearance of adults of the new generation is much later than in 1934, when newly matured fliers were reported as early as February 24th. It would appear that only the later hatchings have matured, due possibly to subsidence of *Empusa* activity with the dry period, which commenced about the end of the first week in February.

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Red Locust, *Nomadacris septemfasciata*. A few swarms of the Red Locust have been reported in different parts of the Colony during May, 1935 but most of these are stated to have been of large size.

Swarms which probably originated in Portuguese East Africa have been haunting the region of the eastern border in the southern uplands of the Melsetter district penetrating at times as far west as the Sabi River Valley. Other districts involved include Lomagundi, Inyanga, Marandellas, Gwanda, Mazoe, Darwin, Hartley and Chibi.

No reports of disease amongst locusts have been received and swarms examined personally in the Melsetter district appeared to be quite healthy, in spite of unusually humid weather for the time of year.

A small band of hoppers was reported in the Lomagundi district as late as the 3rd.

The position generally is, therefore, comparatively quiet but, if favourable weather conditions occur next spring, there are obviously sufficient numbers of the Red Locust in the swarm phase in this Colony and adjacent territory to initiate another period of increase, and the outlook at present must be regarded as uncertain.

Brown Locust, *Locustana pardalina*. Several reports have described the locust swarms seen as 'brown' but no specimens so described have been received at Headquarters. The districts in reference have also been remote from the western border and it appears improbable that any swarms of the real Brown Locust have as yet invaded the Colony.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany (Schaumburg-Lippe). — The Decree of 22 May, 1935, relative to the public establishments for seed disinfection, prescribes measures analogous to those already adopted for the department of Hanover [see this *Bulletin*, 1935, No. 7, p. 157]. (*Ämtliche Pflanzenschutzbestimmungen*, Berlin, 1. Juni 1935, Bd. VII, Nr. 6, S. 94).

Argentine Republic. — The Decree No. 49.931 of 8 October, 1934, modifies the Decree No. 30.362 of 28 October, 1933, concerning the quantity of barriers that may be delivered on loan free of charge to the agricultural syndicates established for the collective control of the South American locust [*Schistocerca paranensis*]. (*Boletín Oficial de la República Argentina*, Buenos Aires, 28 de enero de 1935, año XLIII, núm. 12.187, pág. 1075).

* * By Decree No. 55.058 of 19 January, 1935 the Decree No. 45.741 of 21 July, 1934 [see this *Bulletin*, 1934, No. 12, p. 276] is effective on and after 15 September, 1934. (*Ibid.*, 9 de mayo de 1935, núm. 12.267, pág. 280).

Austria. — By Ministerial Decree No. 58 (undated) authority is given, until further orders, to import, by railway, potatoes coming from the following countries which are recognised as being free from wart disease [*Synchytrium endobioticum*]: — Egypt, Italy, Yugoslavia, Malta, Cyprus, Spain, Hungary. (*Bundesgesetzblatt für den Bundestaats Österreich*, Wien, 21. Februar 1935, Jahrg. 1935, 17. Stück, S. 108).

Denmark. — The Decrees No. 31, 32 and 34, also the Regulation No. 33, dated 22 February, 1935, apply to the importation of plants, parts of plants and potatoes and the sanitary inspection over the importation of the latter. The above plant products should be free from wart disease (*Synchytrium endobioticum*), eelworm (*Heterodera rostochiensis*), and Colorado beetle (*Doryphora* [*Leptinotarsa*] *deceemlineata*). (*Lovtidenden A.*, København, 2. Marts 1935, Nr. 3, sid. 31-42).

Eritrea. — By Decree of the High Commissioner for the East African Colonies No. 7144, dated 13 April, 1935, the introduction into and transit through Eritrea of plants, parts of plants and bunches of bananas is prohibited. This prohibition does not apply to bunches originating from Italian Somaliland. (*Bollettino Ufficiale del Governo dell'Eritrea*, Asmara, 30 aprile 1935, anno XLIV, n. 8, p. 108).

United States of America. — Amendment No. 1 to revised rules and regulations supplemental to Notice of Quarantine No. 63 on account of the white pine blister rust [*Cronartium ribicola*], approved on 9 March and effective on 15 March, 1935, adds Minnesota to the States which have legally established blister rust control areas. A control-area permit is therefore now required before shipping currant and gooseberry plants [*Ribes* spp.] to Minnesota. (United States Department of Agriculture. Bureau of Entomology and Plant Quarantine. *Modification of White Pine Blister Rust Quarantine Regulations*, Washington, 1935, 2 pp.).

Finland. — By the Law No. 53 of 25 January, 1935, the Law of 5 June, 1925, concerning the protection of plants, has been modified. (*Finlands Författningssamling*, Helsingfors, 28 januari 1935, N:o 47-61, sid. 161).

* * The Decree No. 71 of 8 February, 1935, concerns the capture of the musk rat [*Fiber zibethicus*]. (*Ibid.*, 11 february 1935, N:o 86-72, sid. 211).

France. — A Ministerial Decree of 29 April, 1935, provides for the exaction of an inspection tax for certain imports subject to phytopathological control. (Ministère de l'Agriculture. Direction de l'Agriculture. *Bulletin de l'Office de Renseignements Agricoles*, Paris, 1^{er} mai 1935, année 1935, n° 9, p. 196).

* * By Ministerial Decree of 29 April, 1935 a Commission is instituted at the Cereal Service of the Ministry of Agriculture for the purpose of studying suitable measures for the protection of reserve stocks against damage caused by rodents and insects. (*Ibid.*, 15 mai 1935, n° 10, p. 207).

* * The Ministerial Decree of 10 May, 1935, contains regulations for consignments of potatoes of the new harvest gathered in areas infested by the Colorado beetle [*Leptinotarsa decemlineata*] and in protected areas and destined for uninfested regions in France or departments over-seas, colonies and protectorats, during the period from 15 May to 25 September.

Conditions are also established under which consignments of tubers from the previous year may be sent to regions uninfested by the Colorado beetle.

This Ministerial Decree is accompanied by model authorisations for consignment to be issued, as the case may be, by the president of the syndicate for the protection of crops against pests, or by the president of the syndicate of potato merchants. (*Ibid.*, 15 mai 1935, n° 10, p. 210-211).

* * By Ministerial Decree of 15 May, 1935 modifying the Ministerial Decree of 13 April 1934 [see this *Bulletin*, 1934, No. 6, p. 129] control may be exercised over seed potatoes cultivated by farmers who are members of an agricultural syndicate legally constituted for the purpose of sanitary selection on the spot, the statutes of which have been previously approved by the Administration and which was given proofs that the said farmers have, for at least 5 years, successfully practised the genealogical selection of potatoes utilising seeds from genealogical selection produced by the syndicate.

The present Ministerial Decree is followed by the technical regulation dated 13 April, 1934 [see this *Bulletin*, 1934, No. 6, p. 129], also modified, and relative to requests for admission to official control, to registration of cultivations admitted to control, and to technical instructions for this control. (*Ibid.*, 1^{er} juin 1935, n° 11, p. 243-245).

* * According to Article 3 of the trade and navigation treaty between the French Republic and the Kingdom of the Netherlands, published and brought provisionally into force by Decree of 29 May, 1935, the high contracting parties engage to in no way hinder the exchange of merchandise either by prohibitions or restrictions on importation or exportation. Exceptions, however, may be made for reasons of sanitary policy with a view to assuring, *inter alia*,

the protection of plants against diseases or parasites and in as much as these prohibitions or restrictions are at the same time applicable to all other countries in similar circumstances. (*Ibid.*, p. 239-243).

Italy. — By Ministerial Decree of 5 April, 1935, the control of the oriental peach moth (*Cydia* [*Laspeyresia*] *molesta*) has been made compulsory in the provinces of Ravenna and Forlì, the same measures to be applied as already adopted for other provinces by the Ministerial Decree of 12 February, 1935, [see this *Bulletin*, 1935, No. 5, p. 115]. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, Roma, 21 aprile 1935, anno VII, n. 12, pp. 1792-1793).

* * By two Ministerial Decrees of 6 April, 1935, and by virtue of Article 17 of the Law No. 987 of 18 June, 1931 containing measures for the defence of cultivated plants and agricultural products against adverse conditions, and for the organisation of services relative thereto [see this *Bulletin*, 1931, No. 9, p. 166], compulsory Syndicates for the improvement and development of fruit-growing in the provinces of Padua and Venice have been established.

The annual contribution payable by each member of the Syndicate cannot exceed 10 centesimi per fruit tree in bearing. (*Ibid.*, pp. 1794-1796).

* * By another Ministerial Decree of the same date, and by virtue of the Royal Decree-Law No. 1754 of 12 August, 1927 containing measures for the development of olive-growing, also the Law No. 987 of 18 June, 1931, a compulsory Syndicate for the improvement and development of olive-growing has been established in the province of Catanzaro.

The contribution payable by each member of the Syndicate cannot exceed 10 centesimi per olive tree in bearing. (*Ibid.*, pp. 1798-1799).

* * By Ministerial Decree of 9 May, 1935, in the commune of Irgoli di Galtelli, province of Nuoro, the wild boar is included for the time being among noxious animals to the extent that the numbers may be reduced by means of two drives carried out according to established methods. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 15 maggio 1935, anno 76^o, n. 114, p. 2270).

* * The Ministerial Decree of 4 May, 1935, modifying the special, technical regulations on the exportation of peaches, establishes, *inter alia*, that it is prohibited to despatch rotten fruit or fruit attacked by the 'mal della scatola' discernible from the outside. (*Ibid.*, 29 maggio 1935, n. 126, pp. 2624-2628, 4 figg.).

* * By Ministerial Decree of 15 May, 1935, a competition, based on qualifications and tests, has been organised for the obtaining of 8 bursaries for continuation studies in Plant Pathology and Agricultural Entomology at

the Royal Institutes for research and experimentation in Phytopathology or also at the Royal Observatories for plant diseases. (*Ibid.*, 27 maggio 1935, n. 124, p. 2556).

* * By Ministerial Decree of 16 May, 1935, and by virtue of the Royal Decree-Law No. 1754 of 12 August, 1927 containing measures for the development of olive-growing, also the Law No. 987 of 18 June, 1931 a compulsory Syndicate for improving and developing olive growing has been established in the province of Siracusa.

The contribution payable by each member of the Syndicate cannot exceed 10 centesimi per olive tree in bearing. (*Bollettino Ufficiale del Ministero dell'Agricoltura e delle Foreste*, Roma, 10 giugno 1935, anno VII, n. 16, pp. 2481-2482).

* * By Ministerial Decree of 17 June, 1935, the control of the olive fly [*Dacus oleae*] by means of arsenical spraying has been made compulsory in the province of Livorno.

The compulsory Syndicate for the improvement and development of olive-growing in the said province is entrusted with the organisation and supervision of the control which should be carried out by and at the expense of owners or olive groves existing in that region. In addition, the Syndicate will carry out these operations at the expense of contraveners or defaulters. (*Pagine Agricole*, Livorno, giugno e luglio 1935, anno XIX, nn. 6 e 7, p. 19).

* * A Ministerial Decree of 12 July, 1935, established the rules to be followed, from the phytosanitary view point, for the temporary importation from abroad of potatoes exclusively intended for planting for the season 1935-1936. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 15 luglio 1935, anno 760, n. 163, pp. 3559-3561).

Morocco (French Zone). — By Vizirial Decree of 26 May, 1935 (26 safar 1354), the Vizirial Decree of 20 September 1927 (23 rebia I 1346) regulating the importation of cotton seed into Morocco and establishing the sanitary control of cotton-growing, is repealed. (*Empire Chérifien. Protectorat de la République française au Maroc. Bulletin Officiel*, Rabat, 21 juin 1935, XXIV^e année, n° 1182, p. 680).

Peru. — By 'resolución' of 14 February, 1935, the valleys of Locumba, Cinto and Ilabaya in the department of Tacna and the valley of Moquegua are declared infested by grape phylloxera (*Phylloxera vastatrix*). In consequence, it is prohibited, in these valleys, to extract vine plants and cuttings intended for any other part of the Republic. It is also prohibited to transport vine plants and cuttings from infested zones to non-infested zones of the same valley except by the means that are adopted with regard to the reconstitution of vineyards. This prohibition is extended to any plant which grows between the infested zones. The vines attacked by grape phylloxera in the valleys of Locumba,

Cinto and Ilabaya should be completely destroyed in accordance with the regulation relative to this matter. The Chief of the Entomological Department of the Agricultural Experiment Station of 'La Molina' and the Chief of the Viticultural and Oenological Section of the National School of Agriculture and Veterinary Science have been charged with visiting the valleys of Locumba, Tacna and Moquegua, to ascertain the presence or absence of grape phylloxera in Tacna, to study the extent of the infestation in the valleys of the province of Locumba and to present a scheme for reconstitution and protection of vineyards in Locumba and Moquegua, also Tacna, if these prove to be infested. *El Peruano*, Lima, 26 de abril de 1935, año 95, tomo I, trimestre II, no. 85, pág. 339).

** The presence of 'arrebatiado' (*Dysdercus ruficollis*) and 'gorgojo de la chupadera' (*Gasterocercodes gossypii*) in the valley of Piura having been ascertained, it is prohibited, by 'resolución' of 8 March, 1935, to cultivate cotton shoots in the whole of this valley. With the object of obtaining a fallow period completely free from cotton plants—growers should destroy, in the valley of Piura, all cotton plants by extracting and burning the roots before 31 December of each year. The presence of cotton plants of the variety 'Pais' is also prohibited in the valley of Piura. (*Ibid.*, 24 de abril de 1935, No. 88, pág. 352).

** The Resolution of 23 March, 1935, establishes that the Supreme Resolution of 15 January, 1931 declaring the valley of Moquegua a zone free from fruit fly *Anastrepha* sp. remains in force and consequently in all its effects. *La Vida Agrícola*, Lima, mayo de 1935, vol. XII, no. 138, págs. 371 y 372).

** The Resolution of 12 April, 1935, approves the regulation of the Supreme Resolution No. 41 of 8 March, 1935 containing rules for cultivating cotton in the valley of Piura in relation to the pests 'arrebatiado' (*Dysdercus ruficollis*) and 'gorgojo de la chupadera' (*Gasterocercodes gossypii*). (*Ibid.*, págs. 368-369).

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NOTES

The Third International Congress of Compared Pathology. — The dates of this Congress have been definitely fixed for 15, 16, 17 and 18 April, 1936 at Athenes, Greece. The Congress will discuss, *inter alia*, questions of Plant Pathology and the possible relations between certain plant and animal diseases. Immunity of plants will be included among the subjects on which special reports will be presented.

The Second International Congress of Microbiology. — In this Congress, which will take place at London from 25 July to 1 August, 1936, will be discussed, *inter alia*, the virus diseases of plants, bacteria and fungi as plant parasites also agricultural Zoology and Parasitology.